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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,971

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Karsten Strehl

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EXAMINER

LUU, CUONG V

ART UNIT

PAPER NUMBER

2128

MAIL DATE

DELIVERY MODE

09/26/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,971	<b>Applicant(s)</b> STREHL, KARSTEN	
	<b>Examiner</b> CUONG V. LUU	<b>Art Unit</b> 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/25/2008 has been entered.

Claims 11-19 are pending. Claims 11-19 have been examined. Claims 11-19 have been rejected.

### ***Response to Amendment***

1. The Applicant's amendment to Figure 6 filed on 8/25/2008 has been considered and accepted.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 11-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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**Claims 11-13 and 17-19 are rejected under 35 U.S.C. 103(a) as being anticipated by the Applicant's Admitted Prior Art, hereinafter the AAPA, of the instant application 10/578971 in view of Wolff et al. (U.S. Pub. 2005/0022166 A1).**

1. As per claim 11, the AAPA teaches a simulation system for computer-implemented simulation and verification of a control system under development, the control system comprising a target hardware and application software running on the target hardware, the simulation system comprising:

hardware implementing model animation interface passing data from the target hardware to a modeling tool for animating a model of the control system (p. 6 lines 27-31 and Figure 6) and an in-model calibration interface passing data from the modeling tool to the application software, the model animation interface and the in-model calibration interface using measurement and calibration technologies in a host-target architecture (p. 5 lines 13-34 and page 8 lines 4-11), to communicate with measurement and calibration interface on the target hardware thereby forming a link between the application software on the target hardware and a host of the host-target architecture. (p. 2 lines 16-21, p. 5, lines 17-31, p. 7 lines 16-19 and p. 8 lines 4-14 figure 6).

However, the AAPA does not teach a generic interface for passing data from the target hardware to a modeling tool for animating a model of the control system and a standard measurement and calibration interface on the target hardware thereby forming a link between the application software on the target hardware and a host of the host-target architecture.

Wolff teaches using standard interfaces for passing data between experimental control target/unit 101 and standard control unit 100, independent of their software platform and hardware target (p. 2 paragraphs 0019-0022).

It would have been obvious to one of ordinary skill in the art to combine the teachings of the AAPA and Wolff. Wolff's teachings would have made the simulation system portable to different platforms (p. 2 paragraph 0020 last 5 lines).

2. As per claim 12, the AAPA teaches the system according to claim 11, further comprising a target server adapted to connect the modeling tool with a target (p. 1 lines 23-27 and p. 6 lines 24-27. The host mentioned here is considered a target server adapted to connect the modeling tool with a target).
3. As per claim 13, the AAPA teaches the system according to claim 12, wherein the target server includes a protocol driver of a communication protocol adapted for communication with the target (p. 6 lines 24-31. The communication between the server and target is facilitated by at least one of communication protocols listed in these lines, and this teaching inherits a protocol driver of a communication protocol).
4. As per claim 17, these limitations have already been discussed in claim 11. They are, therefore, rejected for the same reasons.
5. As per claim 18, these limitations have already been discussed in claim 11. They are, therefore, rejected for the same reasons.

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6. As per claim 19, claim 11 inherits these limitations. They are, therefore, rejected for the same reasons.

**Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Wolff as applied to claim 11, and further in view of Stewart et al (Design of Dynamically Reconfigurable Real-time Software Using Port-Based Objects, IEEE Transaction on Software Engineering, Vol. 23, No. 12, December 1997, pp. 759-776).**

7. As per claim 14, the AAPA teaches a plurality of simulation processes with corresponding memory and interface modules (p. 2 lines 16-21 and p. 3 lines 30-33),

but does not teach the modules including distinct memory locations adapted for inter-module communication.

Stewart teaches this feature (p. 767, col. 2 of this page, section 4.1 State Variable Communication, paragraphs 1-2 of the section and figure 7).

It would have been obvious to one of ordinary skill in the art to combine the teachings of the AAPA and Stewart. Stewart's teachings would have maintained the autonomous execution model while ensuring the integrity of the communication (p. 768 paragraph 1 of col. 1 of the page).

8. As per claim 15, the AAPA teaches simulation is performed by execution of a control system simulation model, the simulation model including a plurality of sub-models being performed on one of the plurality of modules respectively (p. 2 lines 16-21).

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9. As per claim 16, the AAPA does not teach at least some of the modules are dynamically reconfigurable for communication via distinct memory locations.

However, Stewart teaches this limitation (p. 766 paragraph 4 of col. 2 of this page).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cuong V. Luu whose telephone number is 571-272-8572. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah, can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. An inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cuong V Luu/

Examiner, Art Unit 2128

/Alexander J Kosowski/

Primary Examiner, Art Unit 2128